

WHAT IS CLAIMED IS:

1. A display device comprising:

a display medium layer; and

a first electrode and a second electrode, which face each other with the display medium layer interposed between them,

wherein the first electrode includes: a first conductive layer; and a first polymer film, which covers the first conductive layer and which makes contact with the display medium layer,

wherein the second electrode includes: a second conductive layer; and a second polymer film, which covers the second conductive layer and which makes contact with the display medium layer, and

wherein at least a portion of the first conductive layer has a different work function from the second conductive layer, and

wherein the number of benzene rings included in each of the first and second polymer films is 0.4 or less for a molecular weight of 100.

2. The device of claim 1, wherein the first and second polymer films exhibit a transmittance of about 97% or more with respect to incoming light having a wavelength of about 400 nm to about 500 nm.

3. The device of claim 1, wherein the first conductive layer is a reflective conductive layer and the second conductive layer is a transparent conductive layer.

4. The device of claim 3, further comprising another transparent conductive layer, which is provided as a third conductive layer in the first electrode.

5. The device of claim 1, wherein the display medium layer includes a liquid crystal material, and wherein the first and second polymer films are alignment films.

6. The device of claim 1, wherein a voltage being applied to the display medium layer for display purposes is updated at a frequency of about 45 Hz or less.

7. The device of claim 3, wherein the transparent conductive layer includes ITO, and the reflective conductive layer includes Al.

8. The device of claim 1, wherein an AC voltage, which includes an additional offset voltage and which changes its polarity at regular intervals, is applied to the display medium layer.

9. The device of claim 1, wherein a variation in potential difference between potential levels of the first and second electrodes right after the device has been exposed to light is about 10% or less of a voltage that is applied to display a grey-scale tone.

10. A mobile electronic appliance comprising the display device of claim 1.

11. A display device comprising:
a display medium layer; and
a first electrode and a second electrode, which face each other with the display medium layer interposed between them,

wherein the first electrode includes: a first conductive layer; and a first polymer film, which covers the first conductive layer and which makes contact with the display medium layer,

wherein the second electrode includes: a second conductive layer; and a second polymer film, which covers the second conductive layer and which makes contact with the display medium layer, and

wherein at least a portion of the first conductive layer has a different work function from the second conductive layer, and

wherein a variation in potential difference between potential levels of the first and second electrodes right after the device has been exposed to light is about 10% or less of a voltage that is applied to display a grey-scale tone.

12. The device of claim 11, wherein the display medium layer includes a liquid crystal material, and

wherein the variation in potential difference has an absolute value of at most about 250 mV.

13. The device of claim 12, wherein the variation in potential difference has an absolute value of at most about 30 mV.

14. The device of claim 11, wherein the number of benzene rings included in each of the first and second polymer films is 0.4 or less for a molecular weight of 100.

15. The device of claim 11, wherein the first and second polymer films exhibit a transmittance of about 97% or more with respect to incoming light having a wavelength of about 400 nm to about 500 nm.

16. The device of claim 11, wherein the first conductive

layer is a reflective conductive layer and the second conductive layer is a transparent conductive layer.

17. The device of claim 16, further comprising another transparent conductive layer, which is provided as a third conductive layer in the first electrode.

18. The device of claim 11, wherein the first and second polymer films are alignment films.

19. The device of claim 11, wherein a voltage being applied to the display medium layer for display purposes is updated at a frequency of about 45 Hz or less.

20. The device of claim 16, wherein the transparent conductive layer includes ITO, and the reflective conductive layer includes Al.

21. The device of claim 11, wherein an AC voltage, which includes an additional offset voltage and which changes its polarity at regular intervals, is applied to the display medium layer.

22. A mobile electronic appliance comprising the display device of claim 11.